

TABLE I	
SPEED	FORMULA
FOR SPEEDS OF 40 MPH AND LESS	$L = \frac{WS^2}{60}$
FOR SPEEDS OF 45 MPH AND GREATER	$L = WS$

WHERE:

L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED IN MPH

NOTES:

1. USE THE CURRENT EDITION OF AASHTO A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS FOR DESIGN OF ROADWAY ELEMENTS NOT SHOWN ON THIS STANDARD DRAWING.
2. USE THE CURRENT EDITION OF AASHTO ROADSIDE DESIGN GUIDE FOR CLEAR ZONE REQUIREMENTS.
3. CALCULATE CLEAR ZONE FROM SHOULDER LINE OF CLIMBING LANE.
4. USE CLIMBING LANE ON 2 LANE ROADWAY WHEN CRITERIA OF TABLE I IS MET.
5. WHEN CLIMBING LANE REACHES TO CREST, EXTEND CLIMBING LANE A MINIMUM OF 300 FEET OVER CREST, PROVIDED MINIMUM PASSING SIGHT DISTANCE IS AVAILABLE. EXTEND THE CLIMBING LANE TO THE POINT WHERE MINIMUM PASSING SIGHT DISTANCE BECOMES AVAILABLE IF PASSING SIGHT DISTANCE IS RESTRICTED DUE TO HORIZONTAL OR VERTICAL ALIGNMENT, PROVIDED TRUCK SPEED IS LESS THAN 10 MPH BELOW AVERAGE RUNNING SPEED AT THAT POINT. OTHERWISE, EXTEND CLIMBING LANE TO THE POINT WHERE MINIMUM TRUCK SPEED IS EXCEEDED.
6. USE CLIMBING LANE ON MULTI-LANE ROADWAY WHEN TRUCK SPEED IS REDUCED 10 MPH BELOW AVERAGE RUNNING SPEED AND, AFTER ASSIGNING ALL PASSENGER VEHICLES TO THE INNER LANE(S), THE VOLUME EXCEEDS THE DESIGN CAPACITY OF THE REMAINING LANE(S).
7. USE CONTINUOUS CLIMBING LANES WHEN TWO OR MORE CLIMBING LANE SECTIONS ARE JUSTIFIED IN CLOSE PROXIMITY, AND THE GAP BETWEEN THE SECTIONS WOULD BE LESS THAN 1/2 MILE IN LENGTH.
8. USE A MINIMUM LENGTH OF 1000 FEET FOR CLIMBING LANES, NOT INCLUDING TAPERS.
9. PROVIDE A MINIMUM OF 1000' PASSING LANE FOR EACH 1 MILE SECTION WHERE THERE IS NO PASSING SIGHT DISTANCE AND DHV EXCEEDS 80.
10. SEE STD DWG ST 6 FOR SIGNS AND PAVEMENT MARKINGS.

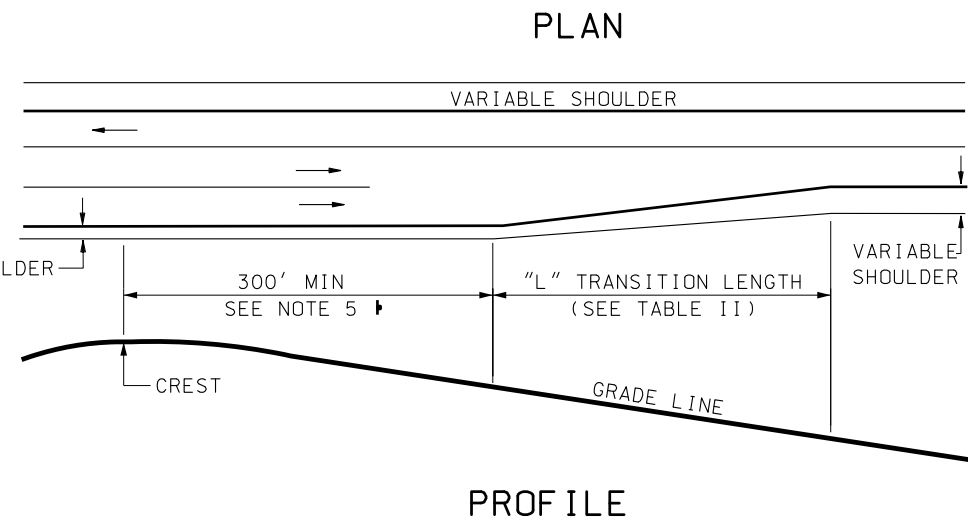


TABLE II			
DESIGN SPEED MPH	"D" FEET	3/4 D	1/4 D
20	225	170	55
25	325	245	80
30	450	340	110
35	550	415	135
40	650	490	160
45	750	565	185
50	850	640	210
55	950	715	235
60	1100	825	275
65	1200	900	300
70	1250	940	310
75	1350	1015	335

TABLE III

THE FOLLOWING THREE CRITERIA, REFLECTING ECONOMIC CONSIDERATIONS, SHOULD BE SATISFIED TO JUSTIFY A CLIMBING LANE:

1. UPGRADE TRAFFIC FLOW RATE IN EXCESS OF 200 VEHICLES PER HOUR
2. UPGRADE TRUCK FLOW RATE IN EXCESS OF 20 VEHICLES PER HOUR
3. ONE OF THE FOLLOWING CONDITIONS EXISTS:
 - A. A 10 MPH OR GREATER SPEED REDUCTION IS EXPECTED FOR A TYPICAL HEAVY TRUCK.
 - B. LEVEL OF SERVICE E or F EXISTS ON THE GRADE
 - C. A REDUCTION OF TWO OR MORE LEVELS OF SERVICE IS EXPERIENCED WHEN MOVING FROM THE APPROACH SEGMENT TO THE GRADE

[illegible]